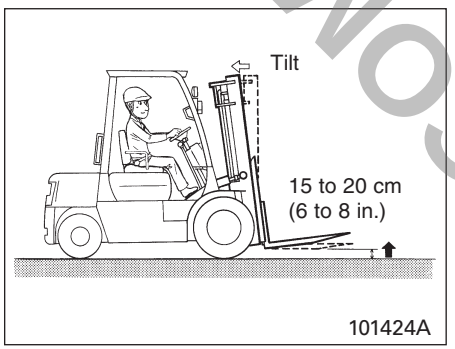
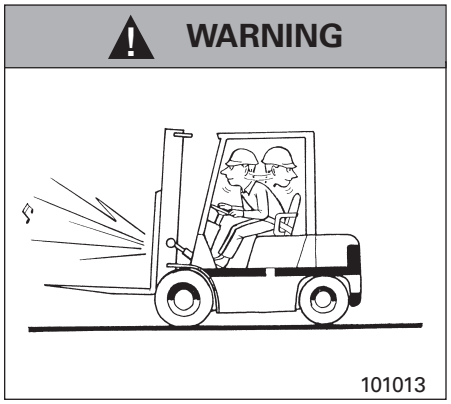
◆ Before Operating Forklift Truck



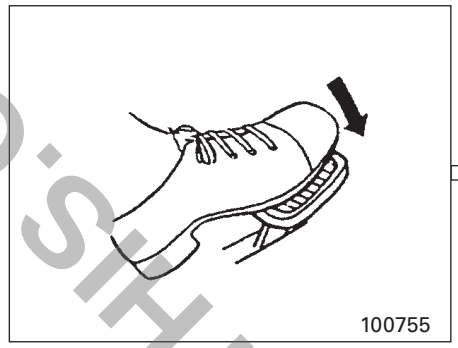
1. Operate the lift control lever to raise the forks to a safe traveling height of 15 to 20 cm (6 to 8 in.) from the floor.
2. Operate the tilt control lever to tilt the mast back all the way.

⚠ WARNING

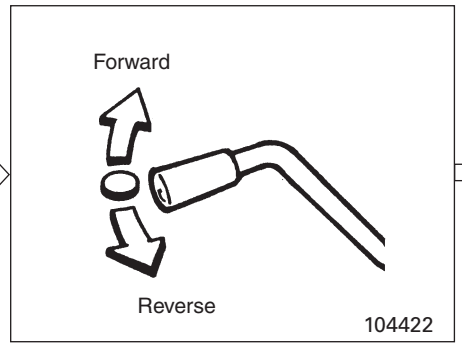


Look around and behind the truck—and sound the horn before moving.

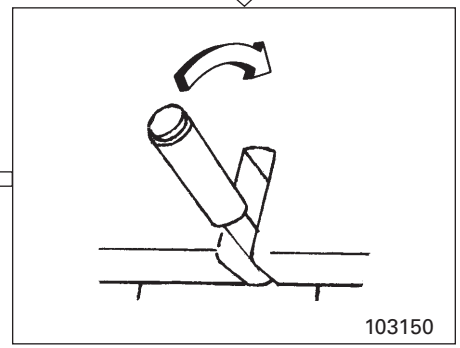
◆ Forklift Truck Operation



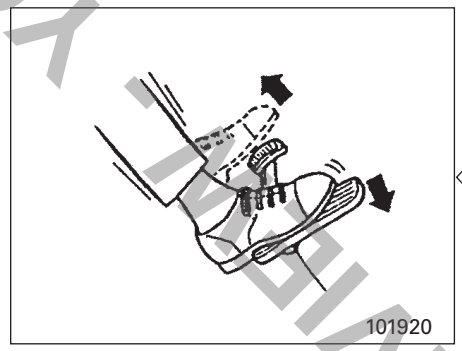
1. Depress the brake pedal.



2. Move the direction lever to the FORWARD or REVERSE position.



3. Press the top button.
   Release the parking brake lever. (The parking brake warning light will go off.)



4. Gradually release the brake pedal while depressing the accelerator pedal.

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- **Error Code Display**
  (* means flickering.)

□ E

Direction Lever is Not Placed in NEUTRAL

– This error code is displayed if the key switch is turned I (ON) with the direction lever placed either in the forward or reverse position and/or the accelerator pedal is depressed.

– This error code is cleared by placing the lever in the neutral position and by releasing the accelerator pedal.

* □ E

Operator Does Not Sit in the Operator's Seat

– This error code is flickered if the key switch is turned I (ON) and the operator is not sitting properly.

– This error code is cleared by sitting in the operator's seat properly.

E 4, E 5

Traction Motor Brush Wear

– E4 is displayed when the right traction motor brush is worn and E5 is displayed when the left traction motor brush is worn. In either case, the vehicle enters power reduction mode.
When this error code is displayed, consult and have this brush replaced by your Mitsubishi forklift truck dealer.

Traction motor means drive motor.

E 6

Pump Motor Brush Wear

– This code is displayed when the pump motor brush is worn and the vehicle enters power reduction mode.
When this error code is displayed, consult and have this brush replaced by your Mitsubishi forklift truck dealer.

H 1, H 2, H 3, H 4

Operating Either the Lift Control Lever, Tilt Control Lever, or Attachment Control Lever

– H1 (lift control lever), H2 (tilt control lever), or H3, H4 (attachment control lever) is displayed if the key switch is turned to the I (ON) position when each lever is not in the neutral position.

– This error code is cleared by placing the lever in neutral position.

* L o

Battery Consumption too much

– This code is flickered when the battery consumption is too much with small capacity. The truck will not operate.

– Turn the key switch to the ○ (OFF) position temporarily and then turn it to the I (ON) position to clear the code.

– If this error code is displayed frequently, charge or replace the battery.

NOTICE: If errors other than those listed (Lo and 55) are displayed, turn the key switch to the ○ (OFF) position temporarily and turn it to the I (ON) position.

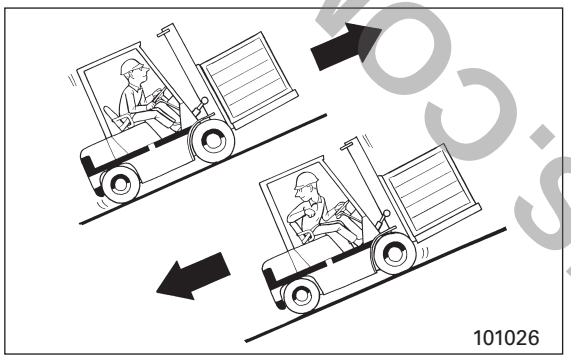
If the error display won't go off, consult your Mitsubishi forklift truck dealer.

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◆ Working on Grades

• Traveling on a Grade

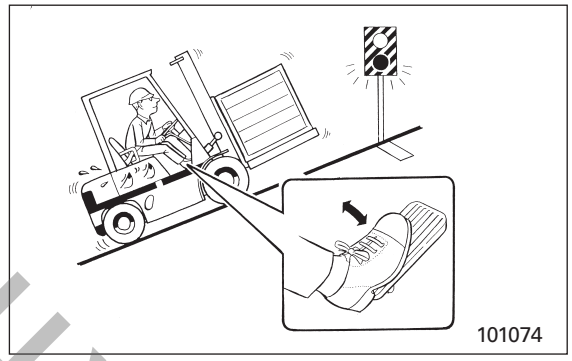


Travel forward up a grade and in reverse down a grade when the truck is loaded.

⚠ WARNING

- **DO NOT continuously use the brake pedal alone. This can result in brake failure and an accident.**
- **DO NOT move the direction lever to NEUTRAL position when traveling down a grade.**

• Stopping on a Grade



⚠ CAUTION

When you have to stop the truck on a grade, DO NOT hold the truck by depressing the accelerator pedal.

When traveling up or down a steep grade:

1. DO NOT make any turn.
2. DO NOT travel across a grade.

⚠ CAUTION

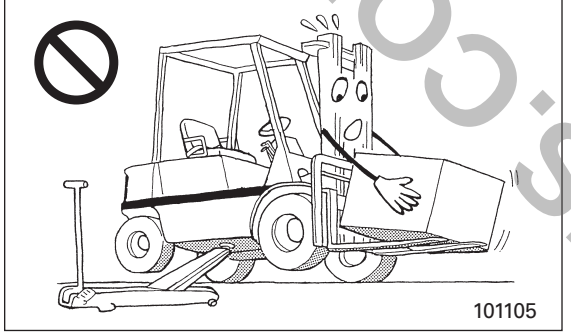
Before you start traveling up a steep grade, apply the brake or parking brake. Depress the accelerator pedal, then release the brake or parking brake.

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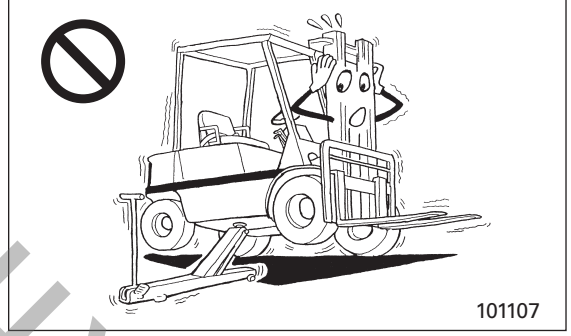
◆ Changing a Tire

⚠ WARNING



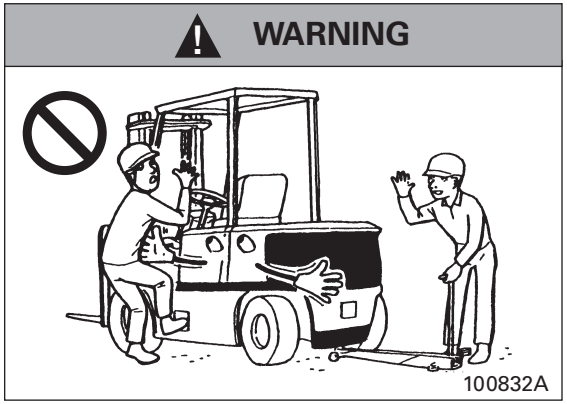
DO NOT attempt to change the tire with the truck loaded. Injury and/or damage may result.

⚠ WARNING



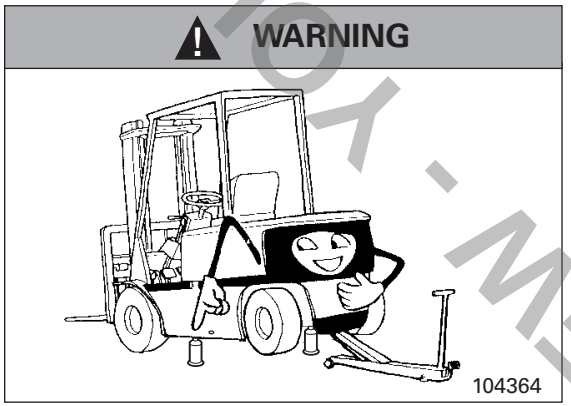
Stop raising the truck when the tire clears the ground. DO NOT raise the truck more than necessary.

⚠ WARNING



BE SURE no one is on the truck when raising the front or rear tires.

⚠ WARNING



DO NOT place any part of your body under the truck. SECURELY SUPPORT the side frames of the truck with jack stands after jacking it up.

⚠ WARNING

- **Make sure the replacement tire is of the same size, type and load range.**
- **Use the tire recommended by MCFA.**

⚠ WARNING

- **Consult your Mitsubishi forklift truck dealer for proper tire changing procedure.**
- **Changing of tire and adjustment procedure must be made by a trained mechanic or dealer personnel.**
- **Perform all maintenance in the factory with proper equipment.**

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◆ Measurements and Refill Capacities — Approximate (Standard Models)

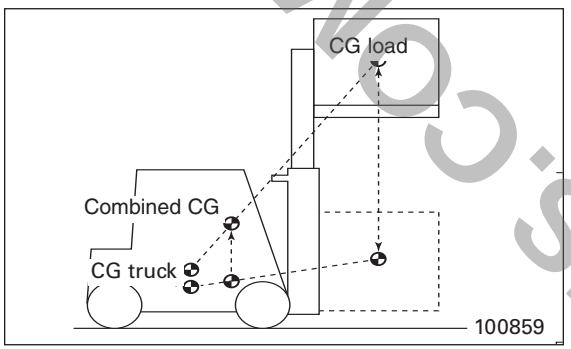
Item \ Truck model		FB16KT	FB18KT	FB20KT
Battery voltage,V		36/48		
Battery electrolyte gravity		1.28		
Steering wheel free-play, mm (in.)		15 to 30 (0.6 to 1.2)		
Brake pedal free-play, mm (in.)		3 to 9 (0.12 to 0.35)		
Parking brake lever operating effort, N (kgf) [lbf]		245 to 294 (25 to 30) [55 to 66]		
Tire size	Front tire	18x7-8		200/50-10
	Rear tire	15x4.5-8		
Tightening torques for wheel nuts, N·m (kgf·m) [lbf·ft]	Front tire	156.9 (16) [115.7]		
	Rear tire	156.9 (16) [115.7]		
Lift chain length limit, mm (in.)/20 links		327 (12.87)		392 (15.43)
Transfer, liter (U.S. gal)		R.H. 1.86 (0.49), L.H. 1.09 (0.29)		
Hydraulic tank, liter (U.S. gal)		Normal level: 15.5 (4.1) High level: 18.5 (4.89)		
Brake fluid reservoir, cc (cu in.)		99 (6.04)		

◆ Rated Capacities and Vehicle Weights (Standard Models)

Item \ Truck model	FB16KT	FB18KT	FB20KT
Rated capacities, kgf (lbf)/500 mm (24 in.)	1600 (3000)	1800 (3500)	2000 (4000)
Vehicle weights, kgf (lbf), approx. (including battery)	3090 (6810)	3290 (7250)	3520 (7760)

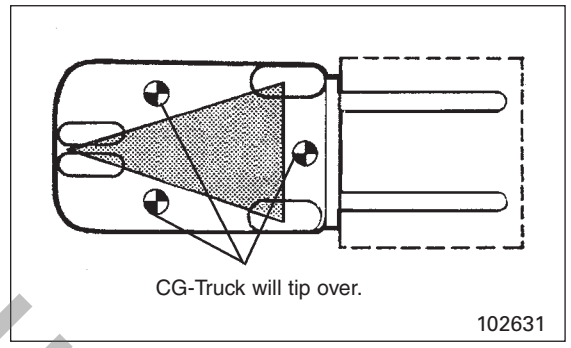
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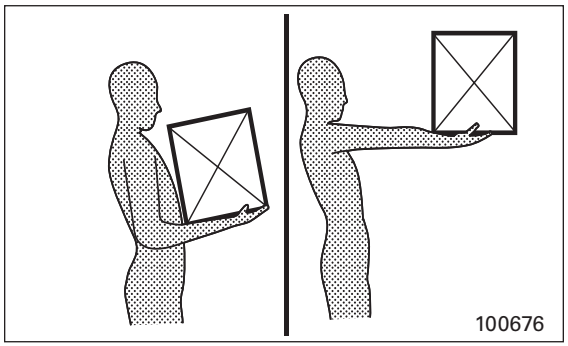
These factors must be considered when the forklift truck is unloaded, as well, because an empty forklift truck will tip over to the side more easily than a forklift truck carrying a load in the lowered position.

◆ Forklift Truck Stability Base



In order for the forklift truck to be stable (not tip over forward or to the side), the CG must stay within the area of the forklift truck stability base—a triangle drawn between the front wheels and the pivot of the rear axle. If the CG moves forward of the front axle, the forklift truck will tip over forward. If the CG moves outside of the line on either side of the stability base, the forklift truck will tip over to the side.

◆ Rated Capacity (Weight and Load Center)



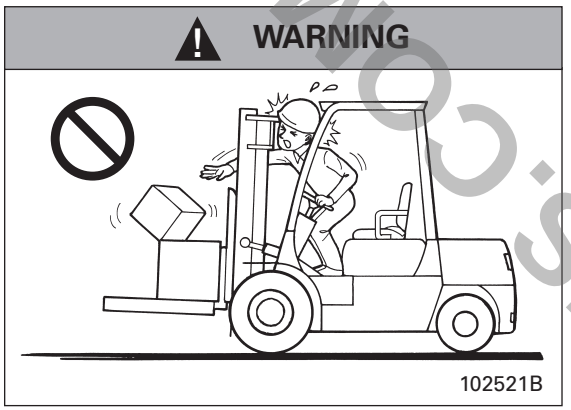
The capacity of the forklift truck is shown on the capacity chart. It is determined by the weight and load center. The load center is determined by the location of the CG of the load. The load center shown on the capacity chart is the horizontal distance from the front face of the forks, or the load face of an attachment, to the CG in the load. The location of the CG of the vertical direction is the same as the horizontal dimension.

Keep in mind that, unless otherwise indicated, the capacity shown on the capacity chart is for a standard forklift truck with standard backrest, forks and mast, and having no special-purpose attachment. In addition, the capacity presumes the load center is no further from the top of the forks than it is from the face of the backrest. If these conditions do not exist, the operator may have to reduce the safe operating load because the truck stability may be reduced. The forklift truck should not be operated if its capacity chart does not indicate capacity.

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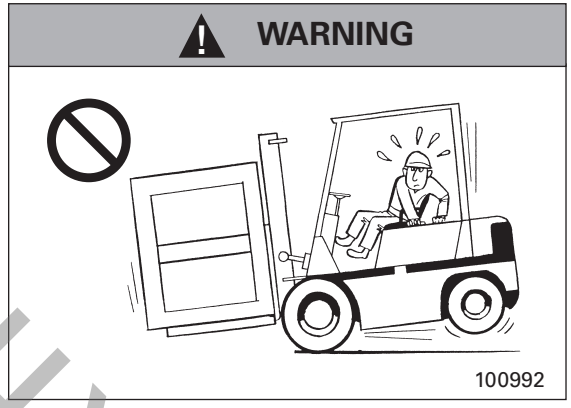
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45



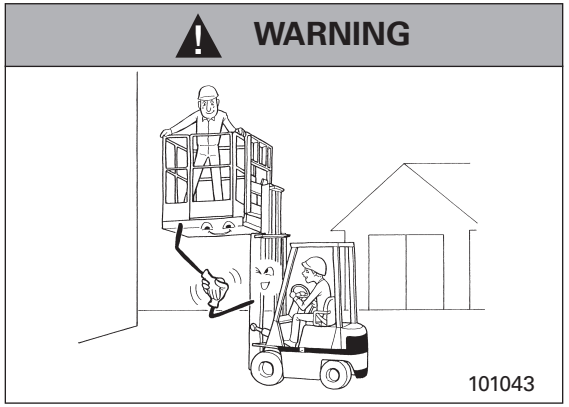
Stay clear of pinch points!

Keep all parts of your body away from moving parts such as the mast, carriage and attachments. Do not put any part of your body between the head guard and the mast. If the mast moves unexpectedly, you could get caught between the mast and overhead guard and a serious accident could occur.



Always stay within the capacity!

Read the capacity chart to make sure a load is within the capacity of your forklift truck before you handle the load.

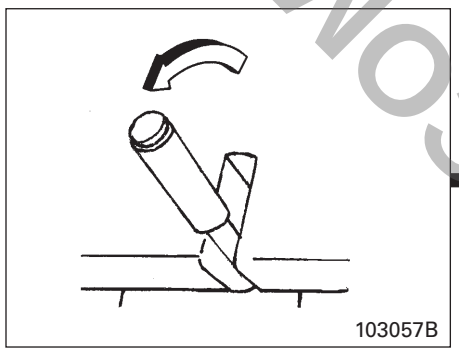


Use only specialized equipment designed to safely raise personnel to high work areas!

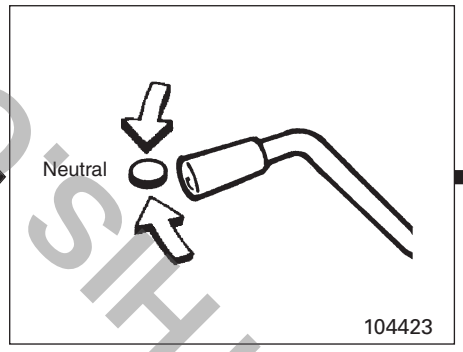
Do not lift personnel except on a securely attached, specially designed Work Platform. Use extreme care when lifting personnel. Position the truck in location. Place the mast in the vertical position, place the truck controls in neutral and apply the parking brake. Lift and lower smoothly. Be available to operate the controls as long as personnel are on the Work Platform. Never transport personnel on the forks or the Work Platform.

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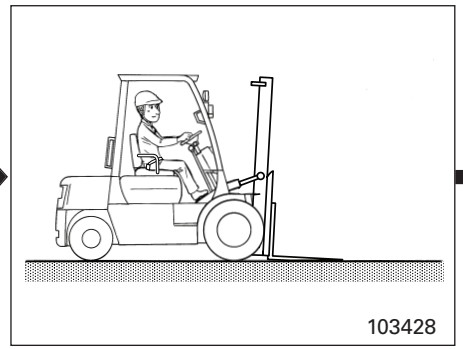
◆ Parking Forklift Truck (After stopping)



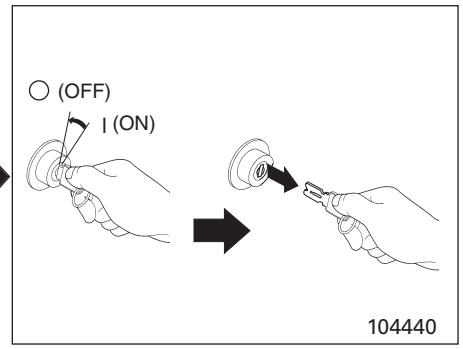
1. Pull the parking brake lever all the way.



2. Place the direction lever in the NEUTRAL position.



3. Tilt the mast forward just a little and lower the forks to the floor until the fork tips touch the floor.



4. Turn the key switch back to the ○ (OFF) position. When leaving the truck, BE SURE to remove the key.
5. Block the wheels securely.
6. Return the key to a key rack if specified.

⚠ WARNING

Park safely
- **Select a hard level surface.**
- **BE SURE to park in a parking lot if available.**
- **If the lift mechanism is disabled and the forks cannot be lowered to the floor, attach a warning tag to the tip of the fork and position the forks away from pedestrians.**

Get off safely
- **Get off after the truck has come to a complete stop and the above procedure has been followed.**
- **NEVER jump off.**

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◆ Error Codes and Explanations

Error code with ( ) means flickering.

Contact your Mitsubishi forklift truck dealer when the error code is displayed.

Error code	Explanation	Error code	Explanation	Error code	Explanation
E0	Traction Motor R.H, Overheating	31	Pump Motor IGBT Open	E	Direction Lever or Accelerator Not Neutral
E1	Traction Motor L.H, Overheating	32	Pump Motor IGBT Short	(E)	Seat Switch Not On
E2	Pump Motor, Overheating	33	Pump Motor IGBT Driver Fault	H1	Lift Lever Not Neutral
E3	Controller, Overheating	34	Pump Motor Current Sensor Fault	H2	Tilt Lever Not Neutral
E4	Traction Motor R.H, Brush Wear	35	Pump Motor Over-current	H3	Attach1 Lever Not Neutral
E5	Traction Motor L.H, Brush Wear	40	Line Contactor Fault	H4	Attach2 Lever Not Neutral
E6	Pump Motor, Brush Wear	41	Regen Contactor Fault	H5	FC Controller Lever Not Neutral
10	Traction Motor R.H, Armature Fault	42	Pump Contactor Fault	(Lo)	Battery Voltage Low
11	Traction Motor R.H, IGBT Open	43	Regen Diode Fault		
12	Traction Motor R.H, IGBT Short	44	Traction Motor R.H, Armature Diode Fault		
13	Traction Motor R.H, IGBT Driver Fault	45	Traction Motor L.H, Armature Diode Fault		
14	Traction Motor Current Sensor R.H, Fault	46	Pump Motor Armature Diode Fault		
15	Traction Motor R.H, Armature Over-current	47	Traction Motor R.H, Armature Open		
16	Traction Motor R.H, Stall Timer	48	Traction Motor L.H, Armature Open		
17	Traction Motor R.H, Field Fault	49	Pump Motor Armature Open		
18	Traction Motor R.H, Field Driver Fault	50	Steering Sensor Fault		
19	Traction Motor R.H, Field Over-current	51	Accelerator Sensor Fault		
20	Traction Motor L.H, Armature Fault	52	Speed Sensor Fault, R.H.		
21	Traction Motor L.H, IGBT Open	53	Speed Sensor Fault, L.H.		
22	Traction Motor L.H, IGBT Short	54	FC Lever Fault		
23	Traction Motor L.H, IGBT Driver Fault	55	FC Solenoid Fault		
24	Traction Motor Current Sensor L.H, Fault	56	FC Pressure Sensor Fault		
25	Traction Motor L.H, Armature Over-current	57	FC Controller Fault		
26	Traction Motor L.H, Stall Timer	60	Display Communication Fault		
27	Traction Motor L.H, Field Fault	61	E2PROM Fault		
28	Traction Motor L.H, Field Driver Fault	65	Logic Card Not Initialized		
29	Traction Motor L.H, Field Over-current	66	Logic Card Fault		
30	Pump Motor Armature Fault	68	Battery Voltage Too Low		

Traction Motor (Drive Motor)

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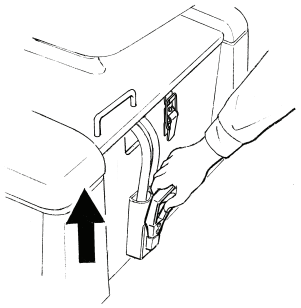
◆ If the Truck Shuts Down Suddenly

Park the truck in a safe area. Check the condition of the battery plug and if it is properly connected.

⚠ CAUTION

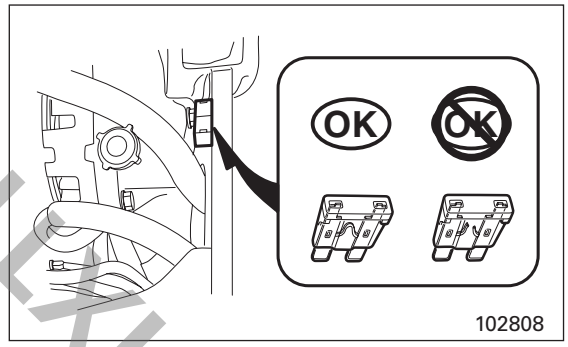
If the fuses are not burned out and you cannot find the cause of the electrical failure, consult your Mitsubishi forklift truck dealer.

⚠ WARNING



104420

1. Turn the key switch to the ○ (OFF) position and disconnect the battery plug before replacing the fuses.
2. Remove the floor plate.



102808

Ampere	Circuit
15A	Electrical components
10A	Controller

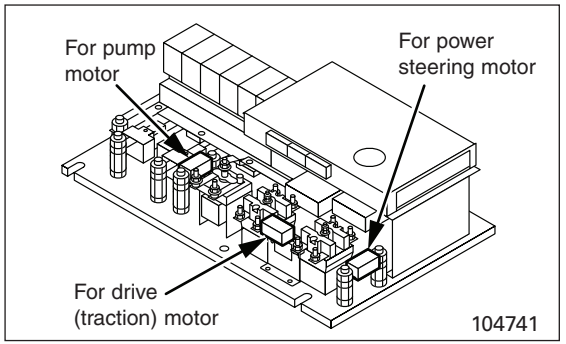
3. Replace the fuses.

NOTICE: Use a fuse puller for fuse replacement.

⚠ CAUTION

Use the correct ampere fuses for replacement.

Fuses for controller



104741

Ampere	Circuit
500A	Drive (Traction) motor
325A	Pump motor
50A	Power steering motor

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74

◆ Maintenance Schedule

As the operator, you are responsible for the performance of the **daily (pre-start) inspection**. You are also responsible for those items listed under **Every 50 Service Hours or Weekly, Whichever Comes First** to keep your forklift truck in proper working condition.

For periodic inspection and periodic change of rubber parts, however, rely on the expert knowledge of the factory-trained servicemen, and the service facilities at your Mitsubishi forklift truck dealer's workshop.

Periodic inspection time intervals	One month after delivery of a new truck Every 200 service hours or monthly, whichever comes first Every 600 service hours or monthly, whichever comes first Every 1200 service hours or 6 months, whichever comes first Every 2400 service hours or 1 year, whichever comes first

• Daily (Pre-start) Inspection

Walk around inspection	1	Maintenance problems found the day before
	2	Oil or battery electrolyte leaks
	3	Tires
	4	Wheel nuts
	5	Lights
	6	Backrest extension
	7	Forks
	8	Assist grip
	9	Tilt cylinder socket bolts
	10	Overhead guard
	11	Brake fluid level
With seat tipped	12	Battery electrolyte level
	13	Battery restraint
With controller cover removed	14	Hydraulic oil level
In seat check	15	Seat adjustment and seat belt
	16	Brake pedal
	17	Accelerator pedal
	18	Parking brake lever
	19	Horn
	20	Lights
Turn key to I (ON) position	21	Central vehicle monitoring system
	22	Battery discharge indicator
	23	Steering wheel
Operating check	24	Lift chains
	25	Mast
	26	Driving check (drive motor, steering, service brakes)

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◆ Recommended Lubricants and Brake Fluid

Lubricants/brake fluid		Specification	Recommendation for ambient temperatures, °C (°F)
			-30 (-22) / -20 (-4) / -10 (14) / 0 (32) / 10 (50) / 20 (68) / 30 (86)
Transfer oil		API service classification CD	SAE 10W
Hydraulic oil and rear axle oil		API service classification CD	SAE 5W / SAE 10W
Brake fluid		F.M.V.S.S. No. 116 — DOT3 or DOT4 (SAE J1703)	
Grease	Wheel bearings	NLGI. No. 2 grade multipurpose type (lithium base), consistency: 265 to 295	
	Chassis	NLGI. No. 1 grade multipurpose type (lithium base), consistency: 310 to 340	

NOTICE: Avoid mixing lubricants. In some cases, different brands of lubricants are not compatible with each other and deteriorate when mixed. It is best to stick with the same brand at successive service intervals.

NOTICE: For refill capacities and measurements, see **Measurements and Refill Capacities — Approximate (Standard Models)**.

NOTICE: For lubricants for the steering actuator and steering gear, consult your Mitsubishi forklift truck dealer.

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